



TOWN OF GRAFTON
GRAFTON MEMORIAL MUNICIPAL CENTER
30 PROVIDENCE ROAD
GRAFTON, MASSACHUSETTS 01519
www.grafton-ma.gov

RECEIVED TOWN CLERK
GRAFTON, MA
2021 MAY 17 PM 12:40

MINUTES

Grafton Historical Commission
7:00 p.m., March 29, 2021

Grafton ZOOM Virtual Conference ID: Meeting ID: 871 3174 4185

A regular meeting of the Grafton Historical Commission was called to order at 7:10 p.m. by David Therrien.

Members Present: David Therrien, John Stephens, Donald Clark, Kimberly Bagni, Robert Aberg, Bruce Teixeira, Mark Fobert

1. **Call to Order** – David Therrien called the meeting to order at 7:10 pm.
2. **Minutes** – Don Clark moved to accept the minutes of June, 2020 as submitted and February 11, 2021 as amended, John Stephens seconded. Motion carried 7-0.
3. **Bills** – No bills.
4. **Discussion of RFP for 17 & 27 Upton St** – Robert Aberg moved and Don Clark seconded that “The Historical Commission recommends that the proposed redevelopment of the old DPW building property at 27 and 17 Upton St change the wording of “may preserve” the tree barn (a.k.a. the Old O’Hara Barn) and demolish the other two buildings to instead read “shall preserve the tree barn as a standalone structure”. Contiguous access between the historical tree barn and the rest of the property appears to be difficult due to the wetlands that separate the tree barn from the rest of the parcel to the east. The RFP stipulated that the proposal should retain the village feel as a gateway to the historic Common area, but the proposal includes a 50 ft four story structure with 136 rental units with minimum setback from the road – the combination of height, small setback, and high number of units does not appear to meet the goal of retaining the village feel and character. The Commission raises the question as to whether 17 Upton St was explicitly included in the wording of the warrant article, since it is discussed in the RFP.” Motion carried 7-0.
5. **Correspondence** –
 - A. **Windle Ave. Machine Shop** – No change to the existing structures is planned as part of this work, no comments.
 - B. **NGRID Line Refurbishment** – no comments.

C. MADOT Bridge Replacement – no comments.

6. Public Input – None.

7. Executive Session, if necessary. Not necessary.

8. Adjournment – Don Clark moved to adjourn the meeting and Rob Aberg seconded. The chair adjourned the meeting at 8:14 p.m. Motion carried 7-0.

List of Documents Used:

- Letter from National Grid regarding Windle Ave Machine Shop.
- Letter from National Grid regarding high tension line refurbishment.
- Letter from MA DOT regarding bridge replacement.

Minutes approved on: May 13, 2021

Minutes Respectfully Submitted
By Robert Aberg, Clerk
Grafton Historical Commission

February 18, 2021

RE: Sutton/Replacement of Bridge S-33-004
Depot Street Bridge over Blackstone River
MassDOT Highway Division Project Number 608640
Section 106 Review — Early Environmental Coordination

Mr. David Therrien, Chair
Grafton Historical Commission
30 Providence Road
Grafton, MA 01519

To whom it may concern:

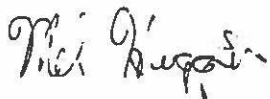
The Massachusetts Department of Transportation Highway Division (MassDOT Highway Division) proposes to replace Bridge S-33-004, which carries Depot Street over the Blackstone River in the Town of Sutton and Grafton. It is anticipated that this project will be supported in part with federal funds dispersed through MassDOT. The project, therefore, will require review under Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800). The enclosed project information is provided to the Massachusetts Historical Commission to initiate consultation with appropriate representatives in compliance with the regulations governing Section 106.

The existing bridge has insufficient capacity to carry all legal Massachusetts vehicular loads. The proposed project will replace the existing bridge with a new bridge structure that complies with MassDOT's healthy transportation policy (pedestrian and bicycle access).

MassDOT requests that the Grafton Historical Commission review the enclosed materials at their earliest convenience, and solicits any comments regarding historic properties that may be within or adjacent to the project area. Please submit written comments to: Patricia A. Leavenworth, P.E., Chief Engineer, Massachusetts Department of Transportation, Highway Division, 10 Park Plaza, Boston, MA 02116, Attn: Jeffrey Shrimpton, Room 4260. Comments also may be submitted by e-mail to jeffrey.shrimpton@state.ma.us. Please include the six-digit MassDOT project number on all correspondence.

Please feel free to contact Jeffrey Shrimpton (857.368.8824) of MassDOT Highway Division's Cultural Resources Unit if you have any questions concerning this project or the Section 106 review process.

Sincerely,



Mel Higgins
Weston & Sampson Engineers, Inc.
atts: scope of work
locus map

Sutton/Replacement of Bridge S-33-004

Depot Street over Blackstone River

Scope of Work

The proposed project includes the replacement of the Depot Street Bridge in Sutton (MassDOT bridge #S-33-004). The bridge spans Blackstone River. Dominant land use in the work area is considered "industrial". The work area is currently an existing road with bridge.

The existing bridge has insufficient capacity to carry all legal Massachusetts vehicular loads. The proposed project will replace the bridge structure with a completely new bridge structure that complies with MassDOT's healthy transportation policy (pedestrian and bicycle access).

The entire road will be shut down during construction to facilitate the removal of existing bridge and construction of new bridge. Riprap will be installed within the water control limits on both east and west sides.

It is anticipated that work will begin in the 2023 construction period.

Please see photographs (attached) of current conditions of the bridge.





GRAY & PAPE
HERITAGE MANAGEMENT

Since 1987

60 Valley Street
Suite 103
Providence, RI 02909
401.273.9900

December 16, 2020

Grafton Historical Commission
Grafton Memorial Municipal Center
30 Providence Road
Grafton, MA 01519

Subject: Invitation to Become a Consulting Party for the New England Power Company d/b/a National Grid Line 323 Refurbishment Project, Millbury to Medway, Worcester County, Massachusetts

To whom it may concern,

On behalf of New England Power Company (d/b/a National Grid [N. Grid]), Gray & Pape will be conducting an Archaeological Intensive (Locational) Survey for the proposed N. Grid Line 323 Refurbishment Project, Millbury to Medway, Worcester County, Massachusetts (Figure 1). N. Grid proposed work involves 165 structure replacements and the removal of one structure between the Millbury Substation No. 3 and the Medway town line. Project designs are evolving for access routes, laydown or workpad areas, and other construction areas as needed. Gray & Pape has assessed the Line 323 Right-of-Way between the Millbury No. 3 Substation and the Medway town line for Native American or historical archaeological sensitivity and has recommended 61 structure replacement locations for subsurface testing.

The purpose of the Archaeological Intensive (Locational) Survey is to determine the presence/absence of archaeological sites relating to Native American or historical use of the area, which may be affected by the proposed undertaking. Gray & Pape is conducting this survey to assist N. Grid in compliance with federal and state regulations regarding significant cultural resources. On-site survey work consisting of subsurface shovel testing is planned for January 2021, with specific dates not yet determined. Key personnel include:

Kimberly M. Smith, M.A., RPA
Senior Principal Investigator
ksmith@graypape.com

Daniel M. Zoto, M.A., RPA

Atlanta • Cincinnati • Frederick • Houston • Indianapolis • Port Charlotte • Providence • Richmond
www.graypape.com

Principal Investigator
dzoto@graypape.com

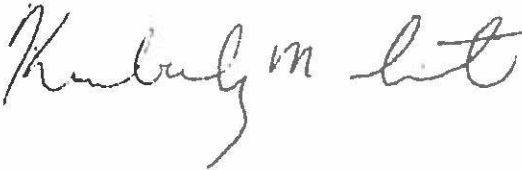
If you wish to comment or participate as a consulting party:

If you wish to provide comment or participate as a consulting party for this undertaking, please contact Ms. Kimberly Smith at ksmith@graypape.com or 401-273-9900. You may also submit written comments to the following mailing address:

Kimberly M. Smith
Gray & Pape, Inc.
60 Valley Street, Suite 103
Providence, Rhode Island 02909

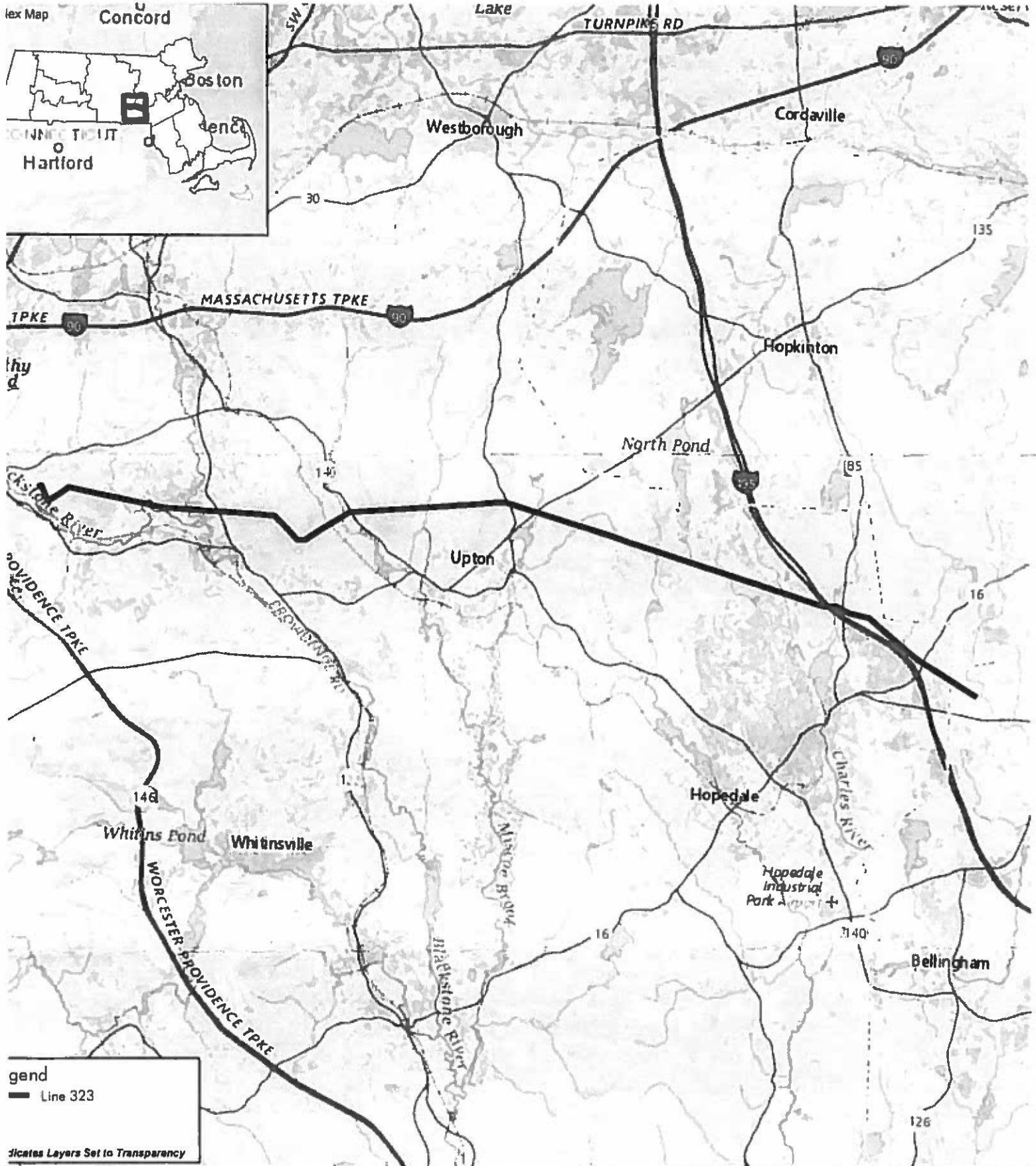
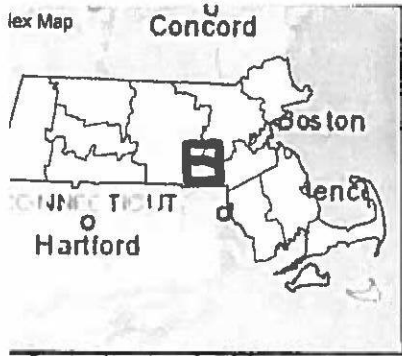
Please respond within 30 days of receipt of this letter. If you wish to be on site during the archaeology fieldwork, please notify us as soon as possible so we can coordinate our field schedule with you.

Sincerely,



Kimberly M. Smith, M.A., RPA
Senior Principal Investigator

Enclosure



1 inch = 2,989 meters
0 1,000 2,000
Meters

LINE 323 REFURBISHMENT, MILLBURY TO MEDWAY

Location of the Line 323 Refurbishment
Millbury to Medway, Worcester County, Massachusetts.

Figure 1-1

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBasis, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
USGS The National Map, National Boundaries Dataset, JDEP

nationalgrid
GRAY PAPE

FORM A - AREA

Assessor's Sheets USGS Quad Area Letter Form Numbers in Area

11 (Grafton), 59
(Shrewsbury)

Milford

GRF.BP

See Data
Sheet

MASSACHUSETTS HISTORICAL COMMISSION
MASSACHUSETTS ARCHIVES BUILDING
220 MORRISSEY BOULEVARD
BOSTON, MASSACHUSETTS 02125

Photograph



Photo 1. General view of Windle Machine Shop, looking northeast.

Town/City: Grafton

Place (neighborhood or village): North Grafton

Name of Area: Windle Machine Shop

Present Use: Industrial, Residential

Construction Dates or Period: 1887–1888

Overall Condition: Good

Major Intrusions and Alterations: Wheelhouse demolished, 1991–2020; Store house partially collapsed, 1991–2020; Addition constructed on shop building, mid-20th c.; Window replacement on house, post-1991

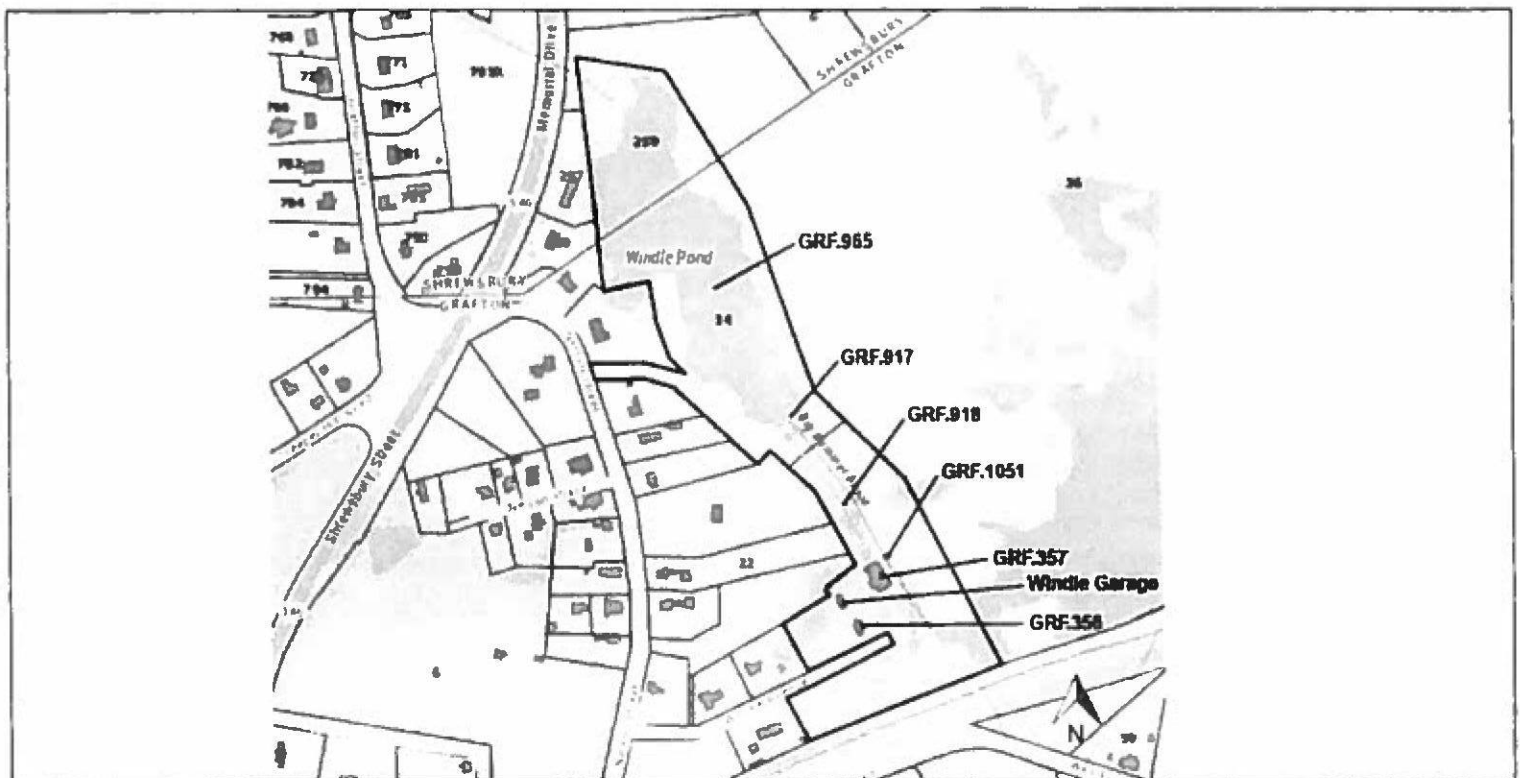
Acreage: 11.79 acres

Recorded by: Melissa J. Andrade and Jillian Miller

Organization: The Public Archaeology Laboratory, Inc.

Date: January 2021

Locus Map



☐ see continuation sheet

INVENTORY FORM A CONTINUATION SHEET

GRAFTON

WINDLE MACHINE SHOP

MASSACHUSETTS HISTORICAL COMMISSION

Area Letter Form Nos.

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

GRF BP

See Data Sheet

- ☒ Recommended for listing in the National Register of Historic Places.
If checked, you must attach a completed National Register Criteria Statement form.

This form is an update to MHC Form A – Area created for the Windle Machine Shop (GRF.BP) in 1991 (Forbes 1991a). This updated documentation provides additional information about the history of the complex and updates the physical description, including alterations that have been made to the area and its resources since 1991.

ARCHITECTURAL DESCRIPTION

The Windle Machine Shop (GRF.BP)¹ is a linear 11.79-acre, late 19th century, small-scale industrial complex that extends north–south along both sides of Bummet Brook (a.k.a. Big Bummet Brook) and includes areas within the towns of Grafton and Shrewsbury. A total of 10.8 acres, including the southern half of Windle Pond are in the village of North Grafton and the remaining 0.98 acre, including the north half for the pond, is in t Shrewsbury (Photos 1–3). The area consists of three addressed parcels: 15 Windle Avenue, Grafton (the primary address and parcel of the area); 34 Nelson Street, Grafton; and 259 Memorial Drive, Shrewsbury. The surrounding area is characterized by dense woods and wetlands to the north and east, the former Boston & Albany railroad line to the south, and suburban residential development to the west. Windle Avenue, a dead-end road extends east from Nelson Street into the south end of the area. Nelson Street runs north–south to the west of the area, and Memorial Drive in Shrewsbury runs roughly north–south to the northwest of the area. An unnamed cart path extends north–south in the west portion of the area, and a paved circular driveway with parking extends from the north side of Windle Avenue into the property.

The Windle Machine Shop area is made up of seven contributing resources that were constructed 1887–1888 as part of the initial development of the machine shop complex. There are four buildings on the parcel at 15 Windle Avenue; two structures, one each on the parcels at 15 Windle Avenue and 34 Nelson Street; and a mill pond located adjacent to the parcels at 34 Nelson Street and 259 Memorial Drive. The Windle Machine Shop Building (1887–1888, GRF.357) is at the northeast end of Windle Avenue, roughly centered in the 15 Windle Avenue parcel. Bummet Brook extends north–south immediately east of the shop building. Straddling the brook and immediately east of the shop building, is the Windle Machine Shop Store House (1887–1888, GRF.1051). The Windle Machine Shop Mill Pond (1887–1888, GRF.965) is in the northern two-thirds of the area (259 Memorial Drive, Shrewsbury and 34 Nelson Street, Grafton), with Bummet Brook as its source. The Windle Machine Shop Dam (1887–1888, GRF.917) is at the south end of the mill pond (34 Nelson Street, Grafton) and connects to the Windle Machine Shop Head Race (1887–1888, GRF.918) that extends north–south between the pond and shop building, crossing through the two Grafton parcels. The industrial buildings and structures are somewhat obscured from view by vegetation that has grown along the perimeter of the resources since the late twentieth century. In addition to the industrial buildings, the complex contains two residential buildings to the southwest of the shop building: the John E. and Marietta Windle House (1887–1888, GRF.356) and the Windle Garage (ca. 1900, no MHC no.). The house is on the north side of Windle Avenue on a slight hill, surrounded by lawn, with the garage to the north at the center of the driveway and parking.

The Windle Machine Shop Building is a west-facing, one-story, nine-bay-by-five-bay, rectangular, wood-frame mill building (see Photo 1, Photos 4-7). It has a wide shallow pitched gable roof with shallow boxed eaves that have molded trim and a narrow plain fascia. The roof surfacing materials are not visible from the ground, but that are likely rolled asphalt or rubber membrane based on aerial imagery. The walls are sheathed in wood clapboard with plain corner boards, and rest on a fieldstone foundation. The building is built into the slope of the land with the basement or ground level above-grade on the south and east elevations and below-grade on the west (facade) and north elevations. A three-bay-by-two-bay flat-roof addition is attached to the facade (west elevation). The north and central bays of the addition contain loading-bays with overhead garage doors. The loading bays are accessed by an earthen ramp with a wood and metal post retaining wall that extends west into the circular driveway. The south bay of the addition consists of an open recessed porch above the primary entrance to the building through a single leaf modern paneled metal door. Two windows are in the facade elevation of the main block south of the addition and four windows are in the facade elevation of the main block north of

¹ The Windle Machine Shop area is within the larger North Grafton – New England Village Area (GRF.B).

INVENTORY FORM A CONTINUATION SHEET

GRAFTON

WINDLE MACHINE SHOP

MASSACHUSETTS HISTORICAL COMMISSION

Area Letter Form Nos.

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

GRF.BP

See Data Sheet

the addition. The south elevation of the main block contains four unevenly spaced windows and a garage bay in the ground level, and five windows in the first story above the ground-level openings. The garage bay was likely created in the mid-20th century by expanding a fifth window or an original pedestrian entrance opening. The north elevation contains an off-center entrance with a window to the east and two windows to the west and a wood-framed infilled opening is in the exposed portion of the ground level and aligns with the wheel pit of the waterpower system. The east elevation of the shop building is not visible. Fenestration consists of original, 12-over-12 and six-over-six, double-hung wood sash windows in plain wood surrounds with narrow sills. Late-twentieth century metal-sash storms or screens are affixed to the exteriors of the windows.

The Windle Machine Shop Dam is an earthen berm that impounds Bummet Brook to create the 6-acre Windle Machine Shop Mill Pond (see Photo 3, Photos 8–12). The berm once acted as a bridge for a cart path that extended east–west through the Windle Machine Shop complex. An L-shaped spillway at the west end of the berm has two outlets, one to the head race for the shop building and the other for overflow into Bummet Brook. The spillway has high dry-laid fieldstone walls with granite caps and fieldstone wing walls. The fieldstone-lined head race extends downhill approximately 200 feet north–south, between the pond/dam and the shop building, where the wheel pit is located (Photos 13–15). The head race is bound to the west by a fieldstone wall and cart path and to the east by Bummet Brook. The south end of the head race has poured concrete walls on the east side with an iron pipe outlet, which leads east to a not extant wheelhouse (north of the shop building), which was typical of an enclosed wheel system.

The Windle Machine Shop Store House is east of the shop building and is partially collapsed into the brook as of 2020 (Photo 16). The building was formerly set on brick and concrete piers on the east and west sides of the brook. Although partially collapsed, the building appears mostly intact, indicating it may have only slipped from its eastern piers, tipping it eastward into the river. It is a west-facing, one-story, one-bay-by-one-bay, wood-frame building. It has a front-gable roof, with open eaves and the sheathing is not visible, and the walls are clad in vertical-board siding. The west (facade) elevation has a centered entrance consisting of a plain vertical-board door. The north elevation was the only other visible elevation and contains a single window centered in the wall, filled by a multi-light double-hung wood sash window.

The John E. and Marietta Windle House is prominently centered on a grassy hill in the west portion of 15 Windle Avenue's parcel with trees between the building and Windle Avenue (see Photo 2, Photos 17–19). The house is a south-facing, two-story, three-bay-by-two-bay, wood-frame four square type house. The house was constructed between 1887 and 1888, in the Queen Anne style. It has a pyramidal hip roof surfaced in asphalt shingles with deep boxed eaves and molded trim. The cornice is shingled with two rows of sawtooth wood shingles above a single row of scalloped wood singles. A brick chimney pierces the center of the roof. The walls are surfaced in rectangular wood shingles punctuated by rows of sawtooth and scalloped shingles in the upper portion of the second story, at the junction between the first and second stories, and immediately above the foundation. The building has a granite block foundation with basement windows and a rubblestone bulkhead. The south (facade) elevation has the main entrance in the west bay of the first story within a one-story, one-bay-by-one-bay, hip-roof entry vestibule. Two windows are east of the entrance, and two windows are in the second story above the east and west openings of the first story. The entry vestibule is clad in materials matching the house, including the decorative shingling, with single windows in the south and east elevations and the porch entrance in the west elevation, accessed by two granite or concrete block steps. The west elevation contains a single window in the first story and two windows in the second story. The east elevation contains two windows in both the first and second stories. A one-story, shallow-gable roof ell extends from the center of the north (rear) elevation. It has a recessed porch that provides access to the entrance in the rear elevation of the house. A small window is immediately east of the entrance, and two windows are in the second story of the rear elevation. Fenestration consists of replacement, one-over-one, vinyl sash windows with plain surrounds and narrow rectangular sills.

The Windle Garage is an east-facing, one-story, one-bay-by-two-bay, rectangular, wood-frame building (see Photo 2, Photo 20). It has a front-gable roof surfaced in asphalt shingles, with boxed eaves and molded trim. The walls are sheathed in wood clapboards and the foundation is not visible, but likely concrete. The north (facade) elevation has a centered, double-leaf, diagonal-patterned swinging wood door with strap hinges. A small vertical-board door is centered in the gable. The south and west elevations contain two windows each, with six-over-six double-hung wood sash windows covered with two-over-two wood sash storms. A one-story, shed-roof ell with an exterior-end rubblestone chimney

INVENTORY FORM A CONTINUATION SHEET

GRAFTON

WINDLE MACHINE SHOP

MASSACHUSETTS HISTORICAL COMMISSION

Area Letter Form Nos.

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

GRF.BP

See Data Sheet

extended from the north elevation, until sometime between 2014 and 2020, when it was demolished. The rubblestone chimney and concrete slab of the ell remains intact. A small, mid- to late twentieth century, metal-frame shed is north of the garage and a modern, metal-frame, vinyl-sided carport is southwest of the garage.

The area remains an intact local example of a late 19th century small-scale, wood-frame manufacturing complex that has undergone relatively few major alterations since its construction. The primary alterations to the area since it was surveyed in 1991 consist of the removal of the wheelhouse (a small wood-frame tarpapered gable-roof structure) that formerly stood between the start of the headrace immediately north of the shop building and the store house to the east, and the partial collapse of the store house into the brook. The complex has not operated via waterpower since the mid-twentieth century and the associated waterpower structures have fallen into disrepair, although they remain in place. The buildings have also undergone minimal alterations, consisting primarily of the addition constructed on the mill in the mid-20th century and the replacement of the windows of the Windle House after 1991. A side ell or addition to the Windle Garage was removed between 2014 and 2020.

HISTORICAL NARRATIVE

North Grafton (also known as New England Village (GRF.B)), was a rural agricultural area on the Grafton-Shrewsbury border into the early nineteenth century. The initial industries were gristmills, sawmills, a fulling mill, and a small scythe shop along the Quinsigamond River. In the 1820s, under arrangement of the Blackstone Canal Company, William Hovey constructed a dam on the Quinsigamond to create a reservoir for waterpower. In 1825, water rights and over 100-acres was purchased and developed by the New England Manufacturing Company, which manufactured linen twines and bagging. In the early 1830s, the Boston & Worcester Railroad (later the Boston & Albany) was constructed through the village, south of present-day Windle Avenue. By the 1840s, Jasper and Charles Nelson had established a shoe factory along the north side of the railroad (near present-day Windle Avenue), and shoemaking soon after developed into the village's second largest industry. Bummet Brook and other small brooks in the village within proximity to the railroad, were utilized in the early to mid-nineteenth century to provide waterpower for other industries. In 1830, Samuel Putnam dammed Bummet Brook, creating Hayes Pond (south of Windle Pond), for his forge and sawmill. About that same time, Ethan Allen invented the pepperbox pistol (the country's first self-cocking revolver) and produced it in a shop along the brook. An unidentified shop building appears on the 1857 map in the vicinity of present-day Windle Avenue, but Windle Pond had not yet been created (Figure 1) (Walling 1857).² By 1870, many of the small-scale mills were gone, but the Nelson shoe factory at the northwest corner of the intersection of Nelson Street and Windle Avenue and a freight house for the railroad that was immediately south on the opposite side of the railroad remained (Figure 2) (Forbes 1990; MHC 1984; Beers 1870).

In April 1887, John E. Windle purchased land in North Grafton and Shrewsbury from Gilman P. Young (WCRD 1887:1237/527). The parcel contained approximately 4.5 acres and contained a right-of-way at the southeast corner of the lot for cattle to access the brook and a cart path for use along the brook and rights to build a bridge over the brook at the northwest end of the parcel. In June 1887, Windle acquired an additional 0.5-acre parcel from Charles H. Nelson, of the shoe manufacturing company (WCRD 1887:1249/260).³ Soon after, Windle constructed a dam (Windle Machine Shop Dam) across Bummet Brook, creating the Windle Machine Shop Pond and the waterpower system to run the Windle Machine Shop (GRF.BP), which became his company's primary machine manufacturing facility (Figures 3 and 4) (WCRD 1887; Drew et al. 1888; Richards 1898).

² It is possible that this shop is the sawmill referred to in the 1991 form of the Windle Machine Shop Area (GRF.BP) that was reportedly on or near the location of the Windle Machine Shop, and that Windle found its foundation timbers, along with traces of an old canal following the hill eastward to Bummet Brook, when he built the complex (Forbes 1991a). This information has not been substantiated by current research.

³ In 1890, Windle acquired another parcel of land from Gilman P. Young containing approximately 5.7 acres in Grafton and Shrewsbury that bound Windle's land (WCRD 1890:1336/270). In 1946, John E. Windle Jr. expanded the property to include an additional approximate 1 acre through a purchase from the Town of Grafton, creating present-day acreage of the Windle Machine Shop Area (WCRD 1946:3363/538).

INVENTORY FORM A CONTINUATION SHEET

GRAFTON

WINDLE MACHINE SHOP

MASSACHUSETTS HISTORICAL COMMISSION

Area Letter Form Nos.

220 MORRISSEY BOULEVARD, BOSTON, MASSACHUSETTS 02125

GRF.BP

See Data Sheet

John Emory Windle (1853–1915) was the son of English immigrant John Windle (1806–1863) and his second wife, Eliza Sargent Windle (1815–1871). He was born in West Boylston, MA, and attended public schools in Worcester. He worked in the woolen mill at Cherry Valley (a neighborhood of Leicester, MA) as a child, and attained the position of superintendent by the age of 25. While working in the woolen industry, Windle invented a new type of textile machinery, for which he was granted a patent in 1880 (FindaGrave 2016; Crane 1907:117). The following year, Windle left his factory job and founded J.E. Windle, a company dedicated to manufacturing specialty cloth finishing machines for cotton and woolen goods under his patents. By 1887, the firm had its main office at the corner of Foster and Bridge streets in Worcester (not extant building) and was selling a line of folding and rolling machines (Drew et al. 1887:697). Windle continued to innovate and over the following 25 years acquired a substantial number of additional patents on machinery design and machinery pieces, including the first cloth measuring device to run by power (*Industrial World* 1911:xv). Windle's machines found many customers, including the Federal Government for use at the U.S. Army Quartermaster's storehouse (Crane 1907:117).

Windle married Marietta A. Wilbur (1864–1918), daughter of George E. and Mary A. (nee Slocum) Wilbur of Richmond, RI, in 1886. Marietta's father was in the fabric dyeing business. By 1888, the Windles had moved to North Grafton, presumably after building the John E. and Marietta Windle House (1887–1888, GRF.356) on what became Windle Avenue (Drew et al. 1888; Richards 1898). The Windles had a son John E. Jr. (1887–1960) and two daughters, Mildred (b.1889) and Helen (1891–1891), while they resided in North Grafton (FindaGrave 2016). The family appears as residents of Grafton in the 1900 U.S. Census with Windle as the head of household and listed as a proprietor of a machine works, Marietta keeping house and Windle Jr. and Mildred in school (U.S. Census 1900). By 1904, the Windle Garage (ca. 1900, no MHC no.) was added to the property north of the house (Richards 1898; Sanborn Map Co. 1904).

An 1898 atlas of North Grafton shows the J. E. Windle Machine Shop at the northeast end of Windle Avenue, which extends eastward from Nelson Street, north of the railroad (Figure 5). The complex contained four wood-frame buildings and associated waterpower structures, all constructed for Windle between 1887 and 1888: the Windle Machine Shop Building (1887–1888, GRF.357), Windle Machine Shop Store House (1887–1888, GRF.1051), Windle Machine Shop Mill Pond (1887–1888, GRF.965), Windle Machine Shop Dam (1887–1888, GRF.917), Windle Machine Shop Head Race (1887–1888, GRF.918), the House, and a not-extant wood-frame building east of the shop building (Richards 1898).

By 1904, Windle's primary factory operations were in Worcester where he maintained an "extensive plant" at 23 Hermon Street, Worcester (possibly part of the Junction Shop and Hermon Streets, Beacon-Hermon Streets Manufacturing District (NRDIS 1980, WOR.N)), which contains a building at 23–25 Hermon Street that was rented out to various machine manufacturers during the nineteenth and twentieth century (Crane 1907:117; Pfeiffer 1979). It is likely that the Windle Machine Shop in Grafton had become by that time a secondary facility for repair work and storage. The shop complex no longer relied strictly on waterpower either as insurance maps indicate that it had a gasoline engine that powered some of the machinery in the shop building (Figure 6) (Sanborn Map Co. 1904). Windle continued to reside on the property and use the shop building as part of his machine works (Drew et al. 1915:770). In 1910, the complex remained unchanged, except for the construction of a 120-gallon gasoline storage structure (not extant) northwest of the shop building and two ancillary one-story, wood-frame buildings northeast of the garage (not extant) (Figure 7) (Sanborn Map Co. 1910).

After Windle died in 1915, his son John E. Windle Jr. took over management of J. E. Windle (Crane 1907:117). Windle Jr. also inherited his parent's estate either after his father's death in 1915 or his mother's death in 1918. Windle Jr. married Ruth Peabody Woodman (1890–1935) in 1912. They had four children, who did not survive into adulthood. A few years after Ruth's death, Windle Jr. married Aimee Marie Rice (1896–1954) in 1939, and they resided in the Windle House for the duration of their adult lives (NEHGS 1912; FindaGrave 2016; Polk 1954:171). By 1921, Windle was identified in Worcester directories as a manufacturer of cloth finishing machinery (doubling, winding, and measuring machines) for cotton, woolen and silk mills, bleacheries, and finishing works at 23 Hermon Street, Worcester (with no mention of North Grafton) (Sampson & Murdock 1921:1335). By the 1930s, the company was referred to as the Windle Machine Works in directories (Crane 1907:117; Polk 1938:168). Between 1922 and 1932, the gasoline storage building and the two ancillary wood-frame buildings were removed from the area (Figures 8 and 9) (Sanborn Map Co. 1922, 1932).

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The Windle Machine Works, the name applied to the complex on maps in the mid-twentieth century, was used as a repair shop and store house until at least the 1940s and the Windle family continued to live at the house into the 1950s (Sanborn Map Co. 1904, 1910, 1922, 1932, 1947; U.S. Census 1940; Polk 1954:171). Until the mid-twentieth century, the cart path and crossing over the dam remained in use and the land surrounding the area was open expanses of fields (Figure 10). By the 1960s, the open land began to undergo reforestation, creating the present-day wooded landscape surrounding the area (NETR 1938, 1966, 1967).

The area remained under the ownership of the Windle family until 1960, when at the time of Windle Jr.'s death, the property was sold. The company also likely remained active until Windle Jr.'s death, with the company name appearing in directories under Windle Jr. until at least 1954 (Polk 1954:171). In 1960, James H. Allen, executor of the estate of John E. Windle, sold the property, containing 3 parcels (present-day 259 Memorial Drive, Shrewsbury; 34A Nelson Street and 15 Windle Avenue, both of Grafton) for \$22,225 to Roland C. Hallen, Rudolph O. Hallen, and George A. Skerry as trustees of the Wilshire Realty Trust Co. (WCRD 1960:4159/253–260). Additional land along Windle Avenue that was previously part of the Windle estate and contained no buildings or structures was sold off separately from this transaction. By at least 1991, the property was known as Vanguard Machine Co., which was part of Lincoln Precision Machining Co. (Forbes 1991a). Wilshire Realty Trust Co. retained ownership until 2016, when AFR Investments Corp. purchased the property (WCRD 2016:56465/257). The property at 15 Windle Avenue was transferred for \$100 to Aruss Investments Inc. in 2017, with property at 34A Nelson Street and 259 Memorial Drive remaining under the ownership of AFR Investment Corp. to the present. In October 2020, 15 Windle Avenue was sold to Dabella, Inc. of Worcester (Grafton Tax Assessor 2021; WCRD 2020:63590/136). The current owners of the area have addresses immediately adjacent to one another in Worcester, indicating they are associated entities (Grafton Tax Assessor 2021; Shrewsbury Tax Assessor 2021). The buildings remain in use to the present, with the shop building likely used as a storage or small-business shop and zoned for light industrial use, and the house as a residence. The waterpower system remains mostly intact although no longer in use for power (Grafton Tax Assessor 2021; Shrewsbury Tax Assessor 2021).

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Windle Machine Shop Area (GRF.BP)
Grafton, MA
Data Sheet

MHC No.	Assessor No./Address, Town	Historic Name	Date of Const.	Architectural Style/Type	Photograph No.
GRF.357	011.0-0000-0045.0/15 Windle Avenue, Grafton	Windle Machine Shop Building	1887-1888	No Style/Industrial	1, 4-7
GRF.917	011.0-0000-0034.A/34 Nelson Street, Grafton	Windle Machine Shop Dam	1887-1888	Dam	3, 8-10
GRF.965	011.0-0000-0034.A/34 Nelson Street, Grafton; 59-008000/259 Memorial Drive, Shrewsbury	Windle Machine Shop Mill Pond	1887-1888	Mill Pond	3, 11 and 12
GRF.918	011.0-0000-0045.0/15 Windle Avenue and 011.0-0000-0034.A/34A Nelson Street, Grafton	Windle Machine Shop Head Race	1887-1888	Mill Raceway	13-15
GRF.1051	011.0-0000-0045.0/15 Windle Avenue, Grafton	Windle Machine Shop Store House	1887-1888	No Style/Industrial	16
GRF.356	011.0-0000-0045.0/15 Windle Avenue, Grafton	John E. and Marietta Windle House	1887-1888	Queen Anne/Four Square	2, 17-19
No MHC No.	011.0-0000-0045.0/15 Windle Avenue, Grafton	Windle Garage	Ca. 1900	No Style/Garage	2 and 20

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Aerial map of Windle Machine Shop (source: Google Earth base layer).

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PHOTOGRAPHS



Photo 2. General view of Windle Machine Shop Area (House and Garage), looking west.



Photo 3. Windle Machine Shop Pond and Dam, looking north.

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Photo 4. Windle Machine Shop Building, looking northeast.



Photo 5. South elevation of Windle Machine Shop Building south elevation, looking north.

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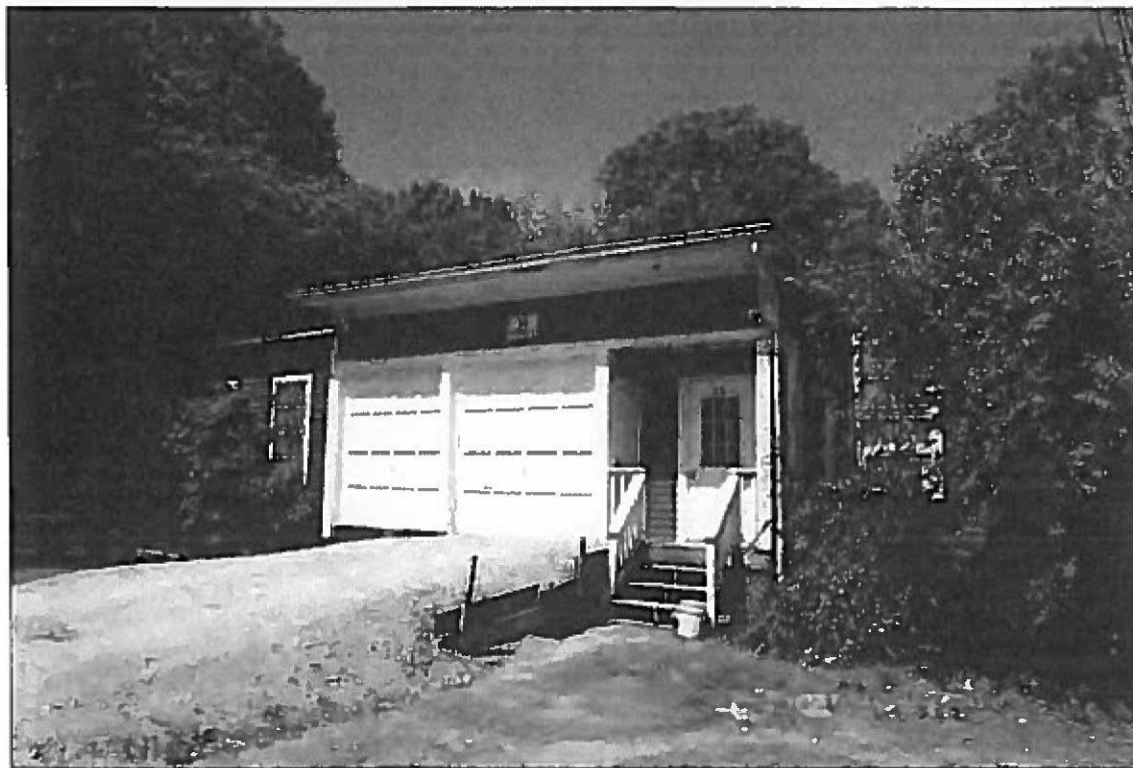


Photo 6. West elevation of Windle Machine Shop Building, looking northeast.



Photo 7. North elevation of Windle Machine Shop Building, looking south.

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Photo 8. Windle Machine Shop Dam top, looking southeast.



Photo 9. Windle Machine Shop Dam, looking north.

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Photo 10. Detail of Windle Machine Shop Dam and abutment wall, looking north.

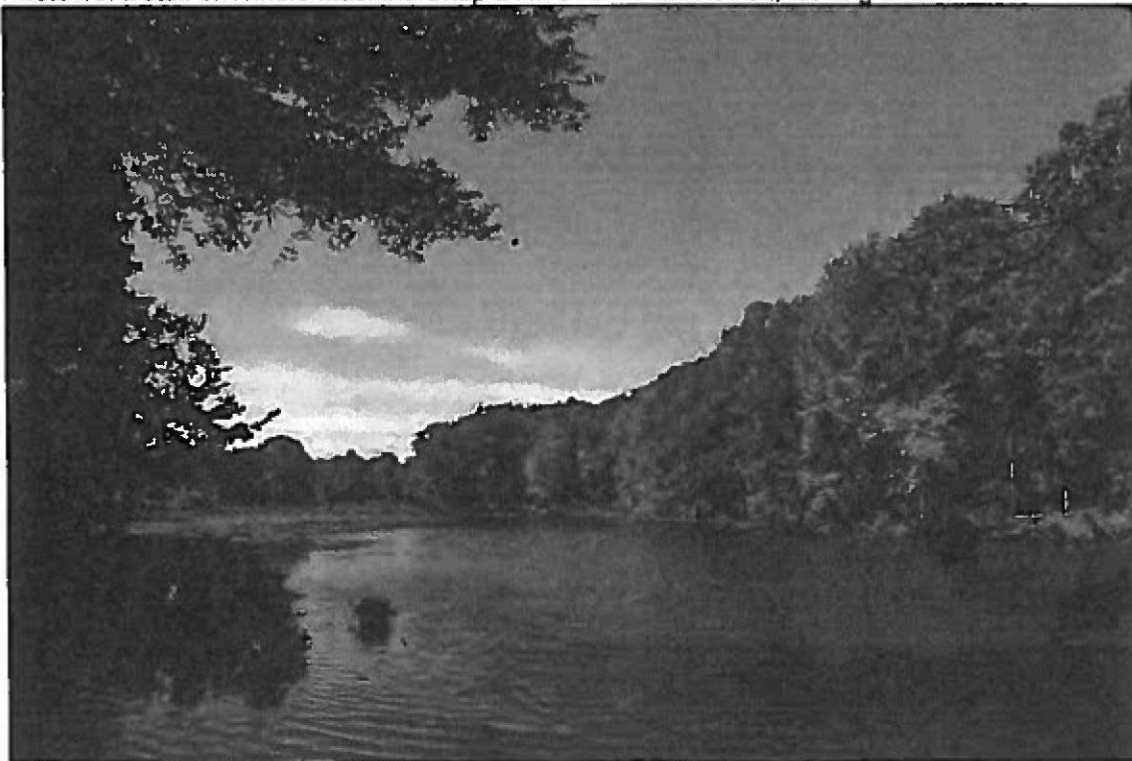


Photo 11. Windle Machine Shop Pond, looking northeast.

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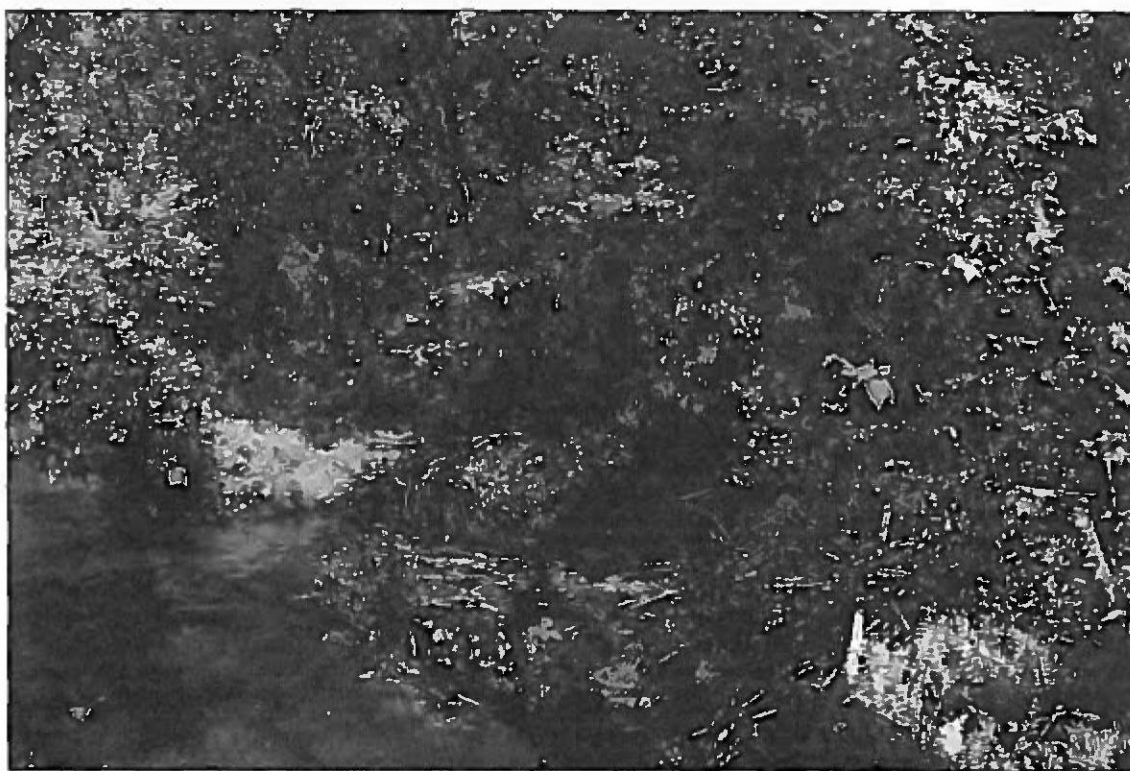


Photo 12. Windle Machine Shop Dam and spillway, looking southeast.

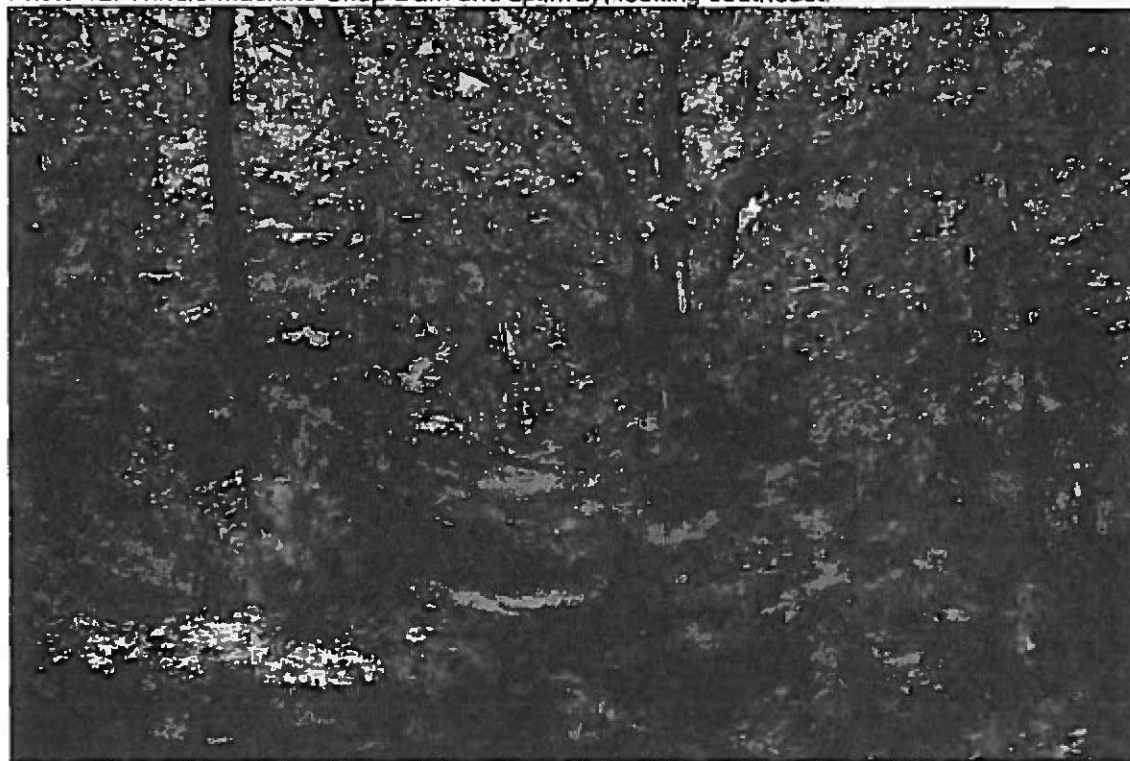


Photo 13. Path and stone wall to west of Windle Machine Shop Head Race, looking north toward Pond.

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Photo 14. Windle Machine Shop Head Race at northwest corner of Windle Machine Shop Building, looking southeast.

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Photo 15. Bummet Brook, east of Head Race, looking south.

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Photo 16. Windle Machine Shop Store House, looking east.



Photo 17. House and Garage, looking northeast.

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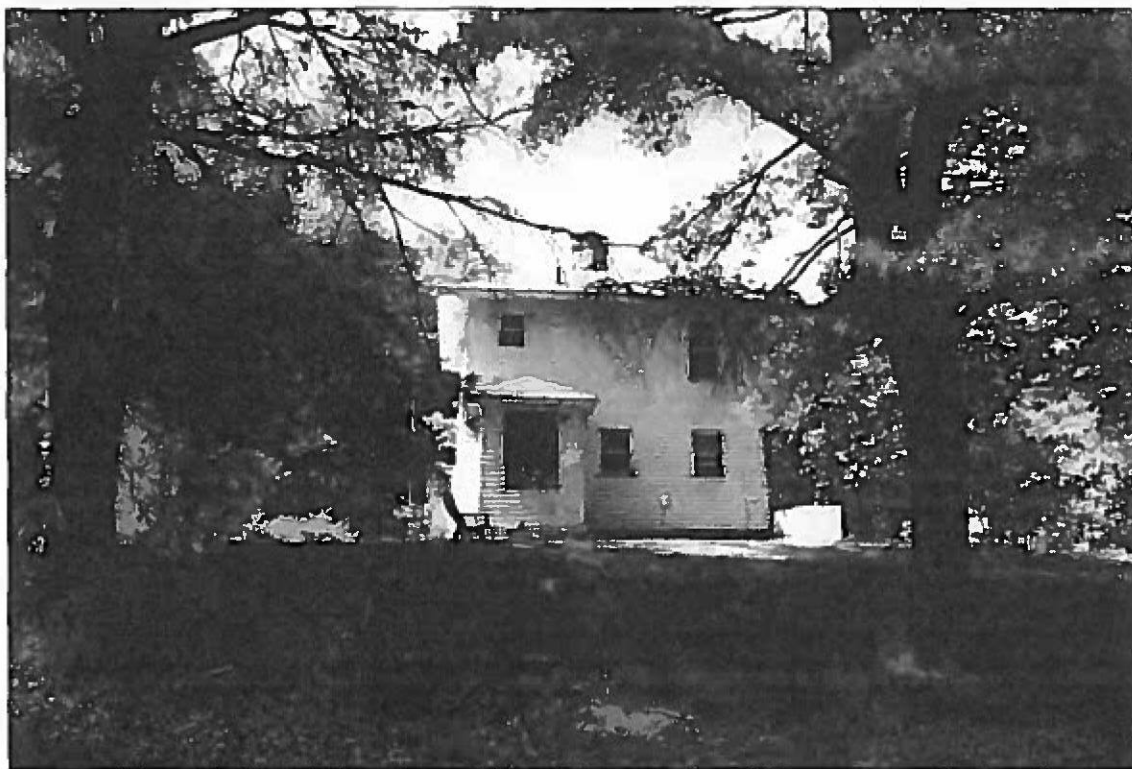


Photo 18. South (facade) elevation of House, looking north.



Photo 19. North and east elevations of House, looking southwest.

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FIGURES

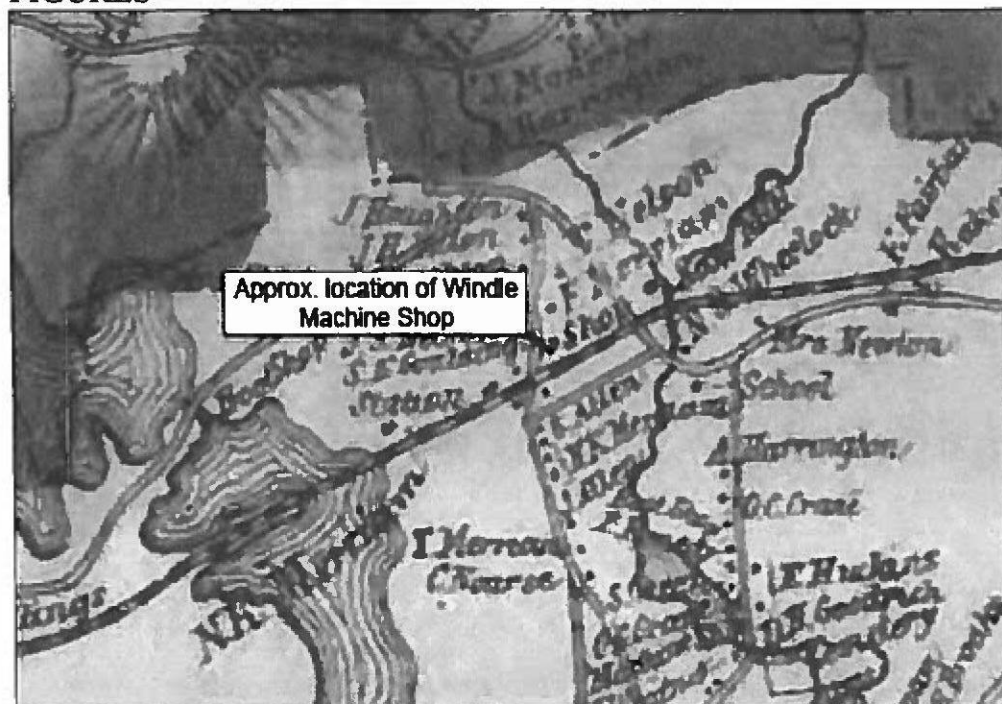


Figure 1. 1857 map showing location of Windle Machine Shop with a shop in the vicinity (Walling 1857).

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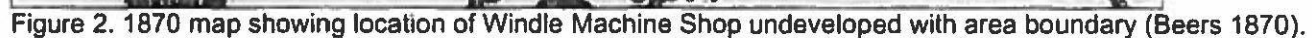


Figure 3. 1888 directory advertisement for J. E. Windle, with reference to Windle Machine Shop in North Grafton (Drew et al. 1888).

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Figure 4. 1893 directory advertisement for J. E. Windle, with reference to Windle Machine Shop in North Grafton (Drew et al. 1893).



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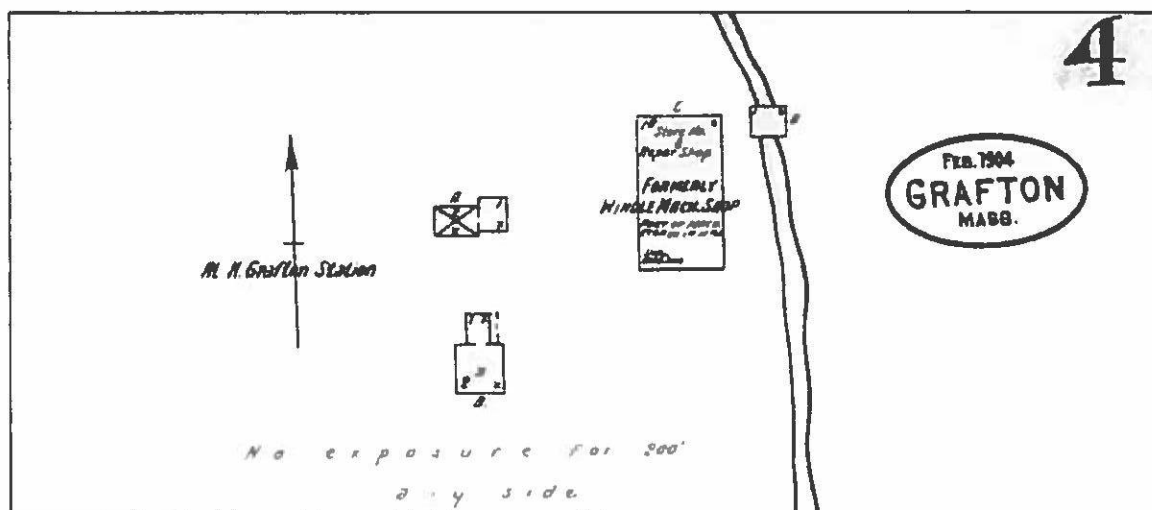


Figure 6. 1904 map of Windle Machine Shop (Sanborn Map Co. 1904).

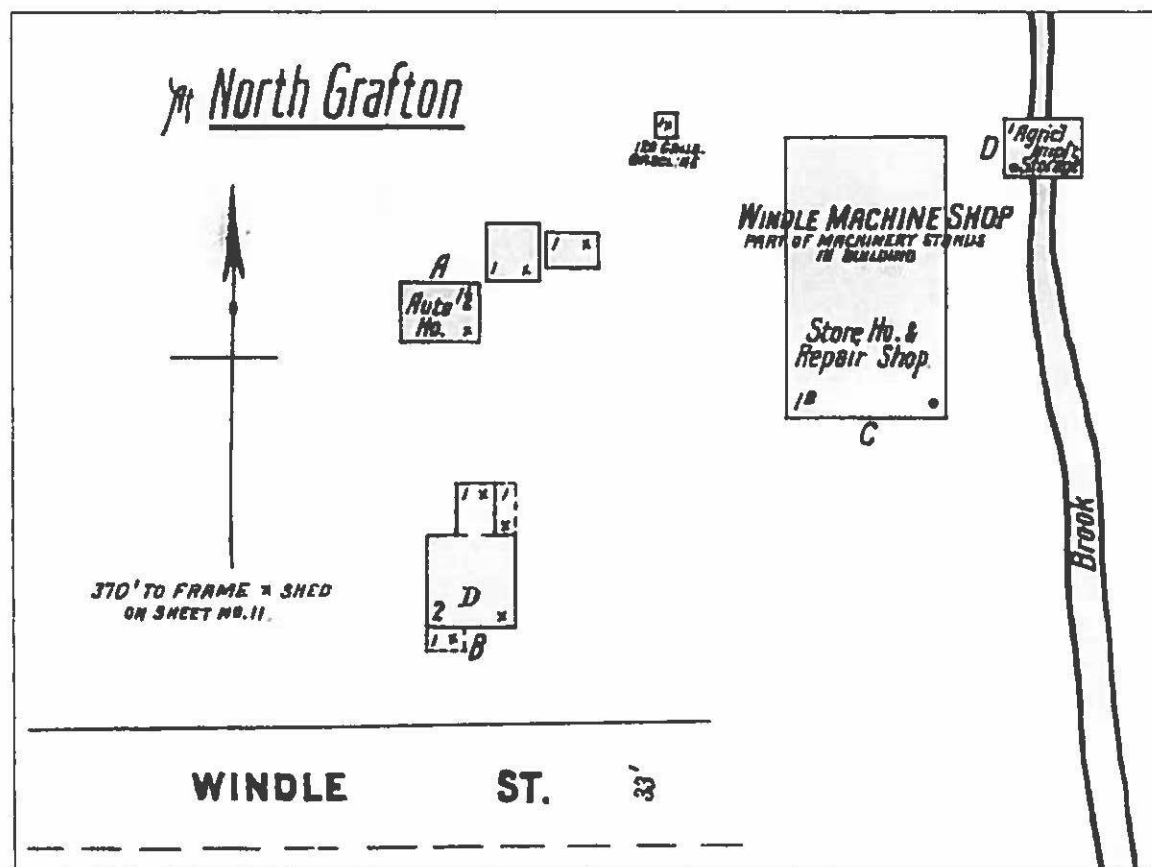


Figure 7. 1910 map of Windle Machine Shop (Sanborn Map Co. 1910).

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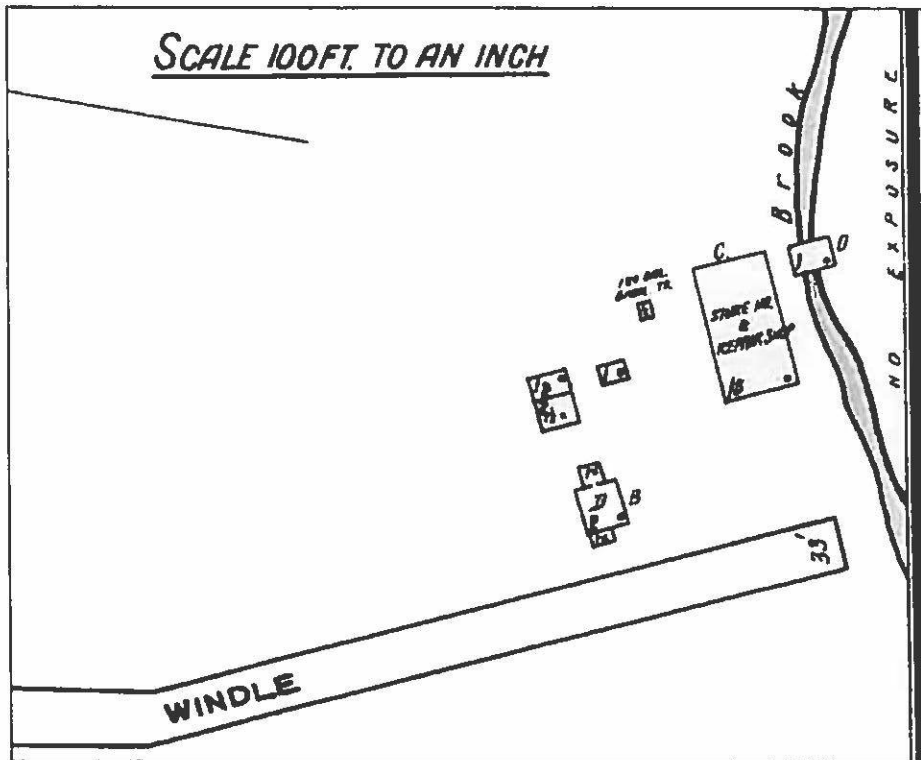


Figure 8. 1922 map of Windle Machine Shop (Sanborn Map Co. 1922).

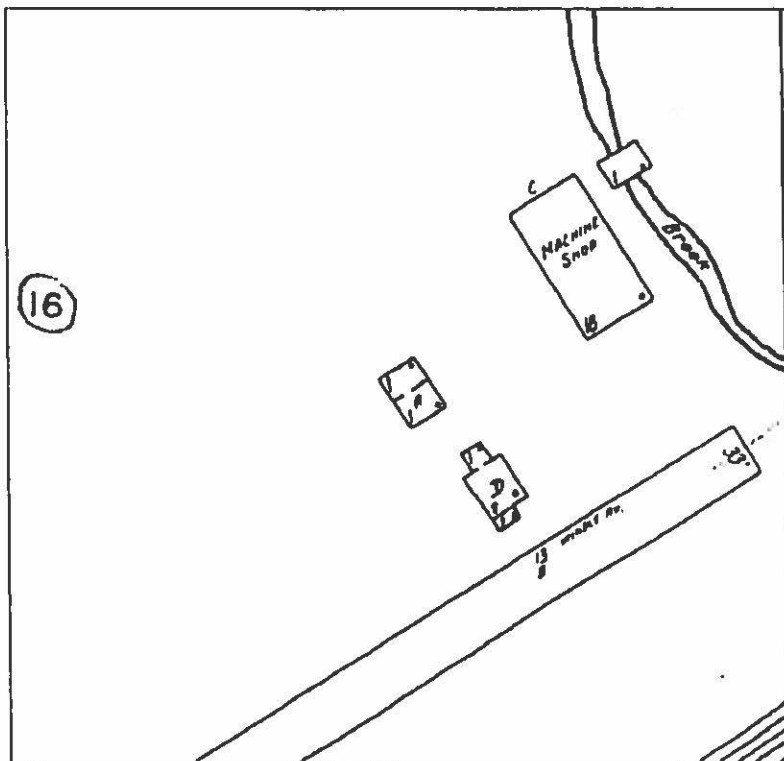


Figure 9. 1932 map of Windle Machine Shop (Sanborn Map Co. 1932).

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Figure 10. 1938 aerial of Windle Machine Shop (NETR 1938).

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National Register of Historic Places Criteria Statement Form

Check all that apply:

- ☐ Individually eligible ☐ Eligible **only** in a historic district
- ☐ Contributing to a potential historic district ☒ Potential historic district

Criteria: ☒ A ☐ B ☒ C ☐ DCriteria Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ GStatement of Significance by Melissa J. Andrade, PAL (January 2021)

The Windle Machine Shop Area (GRF.BP) is eligible for listing in the National Register under Criterion A in the area of Industry at the local level as a rare surviving example of a small-scale, late-nineteenth-century manufacturing complex in Grafton. It is an intact complex of buildings, structures, a mill pond, and water-power infrastructure constructed 1887–1888 developed by John Emory Windle (1853–1915), who invented and manufactured specialty cloth finishing machines for cotton and woolen goods. The firm known as J.E. Windle was one of the few manufacturing companies to successfully use waterpower on Grafton's smaller streams and remained in operation into the mid-twentieth century, well after many similar enterprises closed. The area is significant under Criterion C as an example of small-scale waterpower engineering and for the Windle House, which remains as a good local example of a Queen Anne-style architecture. The property retains integrity of location, setting, design, materials, workmanship, feeling, and association.